

REMARKS/ARGUMENTS

Claims 1-13 remain pending. Claims 1, 2, 7-9, and 13 are amended. Reexamination and reconsideration of the application are respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102 and § 103

Claims 1-7 and 9-13 stand rejected under 35 U.S.C. § 102(b) as unpatentable over Kao (U.S. Patent 5,440,484). Claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Kao in view of Manfred (U.S. Patent 7,146,740).

The claims of instant application patently distinguish over the cited art. Thus, applicant respectfully submits that the rejections of the claims should be withdrawn.

Amended claim 1 recites:

A mobile bearing calculator comprising:
a geomagnetic sensor for detecting earth-magnetism and
a control unit for calculating the geographical bearing based on detection values of the geomagnetic sensor; and
an electronic part mounted at the mobile bearing calculator, wherein a change of an operation state of the electronic part changes an earth-magnetism detection value of the geomagnetic sensor,
the control unit monitors for an event whereby the operation state of the electronic part changes, or a change of the operation state occurs,
and corrects the geographical bearing in accordance with occurrence of the event of the change of the operation state.

Accordingly, claim 1 provides a mobile bearing calculator having an electronic part mounted thereon. In one example, a mobile bearing calculator 100 having a wireless communication unit 150 is described in applicant's specification at FIG. 6 and accompanying text.

Further, a geomagnetic sensor 158 provides an earth-magnetism detection value. A change of the operation state of the electronic part changes the earth-magnetism detection value of the geomagnetic sensor (page 34, line 21 – page 35, line 24). Examples of a change in operation state includes operating audio on the speaker, turning on and off LCD backlight, updating map display, and inserting a memory medium into the device, etc. (id.). FIG. 18 illustrates the varying earth-magnetism detection values as results of inserting the media medium.

The control unit of the calculator monitors for an event of changes in the operation state of the electronic part. Upon detection of such event, the calculator corrects the geographical bearing in accordance with occurrence of the event (page 35, last line – page 36, line 5).

The cited art does not teach or suggest the above limitations, including the limitations “an electronic part..., wherein a change of an operation state of the electronic part changes an earth-magnetism detection value of the geomagnetic sensor.” Moreover, since the cited art does not teach or suggest the “electronic part,” it does not teach or suggest “the control unit monitors for an event whereby the operation state of the electronic part changes, or a change of the operation state occurs,” and “the control unit... corrects the geographical bearing in accordance with occurrence of the event of the change of the operation state.”

Kao is generally directed to a direction sensor and a method of calibrating the relative heading based on measurements of an absolute heading sensor (Abstract; the absolute heading sensor is a geomagnetic sensor 16). The method is based on a

known angular relationship between maxima and minima on the measurement curve of the absolute heading sensor. The maxima and minima are found by rotating the sensors through an angle of at least 360°, reading the absolute and relative heading sensor outputs at numerous points, and comparing each successive output (id.). Kao, however, does not teach or suggest an electronic part, and a change of the operation state of the electronic part changes an earth-magnetism detection value of the geomagnetic sensor. Moreover, Kao does not teach or suggest the reading of the geomagnetic sensor being changed, which further evidences that Kao does not teach or suggest the electronic part. Moreover, given that Kao does not teach or suggest the electronic part, Kao does not teach or suggest detecting a change in the operation state of the electronic part, and correcting the geographical bearing based on that detection.

Likewise, the combination of Kao and Manfred do not teach or suggest the limitations of claim 1 discussed above. Manfred is generally directed at a method for characterizing distortions in the earth's magnetic field caused by a vehicle having a magnetometer affixed therein. The method includes repeatedly measuring the distorted magnetic field and obtaining a three-dimensional orientation of the vehicle axes with respect to the earth at a time of each magnetometer measurement (Abstract). Manfred does not teach or suggest limitations having the electronic part or the control unit required by claim 1.

For the above reasons, the § 102(b) and § 103(a) rejections of claim 1 and claims 2-12, which depend from claim 1, should be withdrawn. Moreover, claims 2-12 recite additional limitations not fairly taught or suggested by the cited art. For example, claim 3 provides that the control unit displays a pictograph on the display unit indicating the direction a specific bearing. The Action at page 3, section (c) contends that the map matching unit 28 as corresponding to the pictograph.

However, Kao at col. 4, lines 53-57 indicates that the map matching unit 28 performs the function of ascertaining a position of the vehicle on the map, and not displaying the pictograph as required by claim 3.

Claim 7 provides a positional information acquiring unit for acquiring information relating to the geographical location of a current position and a wireless communication unit able to connect to a communication network. The cited art does not teach or suggest those suggestions. The Action at page 3, section (g) contends that the user interface 34 corresponds to the limitations of claim 7. However, Kao at col. 5, lines 25-26 indicates that the user interface 34 is a keyboard, which does not correspond to the positional information acquiring unit and the wireless communication unit of claim 7. For example, a keyboard is not a wireless communication unit able to connect to a communication network.

Claim 9 provides a storage unit for storing correction data corresponding to a plurality of different events or a plurality of different changes of the operation state. The Action at page 4, section (h) contends that the database 30 corresponds to those limitations. However, Kao at col. 4, lines 49-51 indicates that the database 30 stores a map of the area the vehicle is traveling in. Thus, the database 30 of Kao does not correspond to the storage unit storing correction data corresponding to a plurality of different events (the event is a change in the operation state of the electronic part).

Thus, claims § 102(b) and § 103(a) rejections of claims 2-12 should be withdrawn.

Claim 13 recites limitations similar to those of claim 1 discussed above, including “a step of monitoring for an event whereby an operation state of the electronic part changes or a change of the operation state occurs” and “a step of correcting the geographical bearing in accordance with the occurrence of the event

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or the change of the operation state.” Thus, the § 103(a) rejection of that claim should likewise be withdrawn.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310)785-4600 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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By:



Lawrence J. McClure
Registration No. 44,228
Attorney for Applicant(s)

1999 Avenue of the Stars, Suite 1400
Los Angeles, California 90067
Telephone: 310-785-4600
Facsimile: 310-785-4601